Before the
Federal Communications Commission
Washington, DC 20554

In Re:	)	
	)	
Delete, Delete, Delete	)	GN Docket No. 25-133
	)	
	)	

COMMENTS OF AETERLINK, CORP., SMC CORPORATION AND SMC CORPORATION OF AMERICA

April 11, 2025

I. Introduction

Aeterlink, Corp. ("Aeterlink") is a startup technology company founded in 2020. With facilities in Indianapolis, Indiana and Tokyo, Japan, Aeterlink has become a leading manufacturer of Far Field Wireless Power Transfer ("WPT") products, building on research and development work for medical implant devices that one of the company's founders conducted at Stanford University. To date, the company has received more than $48 million in funding as it works to develop medical implants that can be charged wirelessly, and factory automation and building management devices that provide completely wireless sensors, resulting in significant benefits for businesses and individuals alike.

Aeterlink's products are distributed throughout the U.S., including through SMC Corporation ("SMC"), which is a global leader in pneumatic and automatic technology that provides solutions for industrial automation. SMC's wholly owned subsidiary, SMC Corporation of America, is headquartered in Indiana and has a network of 23 sales offices and more than 100 distributors across the U.S.

Aeterlink, SMC, and SMC Corporation of America welcome the Commission's "Delete, Delete, Delete" initiative, and provides these comments in response to the Commission's public notice seeking information on deregulatory initiatives that will help firms offer "innovative and advanced capabilities."[1] Aeterlink's products are at the forefront of the WPT field, as the company helps provide innovative medical implant technologies that can be charged wirelessly, leading to greatly increased freedom and flexibility for patients.

In particular, Aeterlink, SMC, and SMC Corporation of America wish to highlight the overly burdensome and time-consuming process required for Commission authorization of certain WPT devices, primarily due to an Equipment Compliance Review ("ECR") procedure. For these devices, the

[1] *In re Delete, Delete, Delete*, Public Notice, GN Docket No. 25-133 (rel. Mar. 12, 2025) (*Public Notice).*

procedure is required in order to obtain Commission concurrence that the product's design features comply with Commission exposure requirements, and requires manufacturers to provide documentation demonstrating how a device meets requirements specified by the Laboratory Division of the Commission's Office of Engineering and Technology. This approval process is significantly more time-consuming than that required for other wireless devices (*e.g.*, WiFi and Bluetooth devices), and is currently required regardless of the power output of the WPT device. Due to the need for this additional review, innovation in WPT devices is stymied. Aeterlink, SMC, and SMC Corporation of America propose that the certification process for low power WPT devices be streamlined by removing the requirement to obtain Commission concurrence through this ECR procedure.

II. Current WPT Equipment Authorization Procedure

Under current Commission procedure, the equipment authorization process for certain WPT devices requires the submission of supplementary, detailed information, which is provided in addition to the Commission's typical equipment authorization process. Specifically, as of October 2023, manufacturers of both low power and high power Part 18 WPT devices that charge at a distance of greater than one meter are typically required to submit extensive information pursuant to the Commission's ECR and Knowledge Database ("KDB") inquiry process.[2] Even for WPT devices that charge at a distance of less than one meter, manufacturers must provide information on:

- WPT operating frequency or frequencies;
- Conducted power for each radiating structure;
- Demonstrated scenarios of operation, including RF exposure compliance information; and

[2] Fed'l Communications Comm'n Office of Engineering and Technology, Laboratory Division, KDB 680186, *Equipment Authorization of Wireless Power Transfer Devices*, Oct. 25, 2023 (*KDB 680106)*. An exception applies in certain specified circumstances, *e.g.*, if the charging distance for the device is less than one meter. *See* Sec. 5.2.

- The maximum distance from the WPT transmitter at which, by design, a load can be charged.[3]

Compiling this information and conducting the necessary testing can add months to the authorization process for device manufacturers, as manufacturers must work with a certified lab to conduct the required testing and prepare the requisite documentation.

III. The ECR Process is Unnecessary for Low Power WPT Devices

The provision of the additional information described above is burdensome for low power WPT device manufacturers, adding to inefficiency in the Commission's review process. The process should be streamlined by eliminating this requirement for low power WPT devices.

Low power WPT devices, such as those produced by Aeterlink, currently operate in the 1W output range. This output range is comparable to that of conventional RFID and mobile communication devices. As such, the low power WPT certification process should match the process for these RFID and mobile communication devices, and should not require the submission of the additional information required by the ECR process.

To be clear, Aeterlink, SMC, and SMC Corporation of America do not take issue with the ECR process for high power WPT devices (*i.e.*, those operating at 10W or higher). These devices operate with an output range that exceeds those of conventional RFID and other devices, and therefore additional testing and technical information is merited. For low power WPT devices, however, there is no compelling reason to require the submission of the additional technical information required by the ECR process.

---

[3] KDB 680106 at para. 5.1.

In addition to providing efficiencies for innovative manufacturers such as Aeterlink, streamlining the equipment authorization process for low power WPT devices will also save the Commission time and manpower in its review of these devices, as less time will be required to review these devices. As the Commission looks for deregulatory initiatives to spur innovation, bringing proportionality to the ECR process should be at the top of its list.

IV. Conclusion

For the reasons described above, the Commission should eliminate the ECR process for low power WPT device authorizations. These devices emit power similarly to RFID and mobile communication devices, and thus the low power WPT review process should be on par with that of those devices. Eliminating this regulatory burden is an important step that the Commission can take help spur the innovation that startup companies like Aeterlink bring to the market.